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October 14, 2021

Mr. Matt Thompson
Wisconsin Department of Natural Resources
1300 W. Clairemont Avenue
Eau Claire, WI 54701

Subject: 2021 Third Quarterly Report - Wauleco, Inc., Wausau, Wisconsin
BRRTS #02-37-000006

Dear Mr. Thompson:

On behalf of Wauleco, Inc., TRC is submitting a copy (enclosed) of the 2021 Third Quarterly Report for the Wauleco, Inc., site in Wausau, Wisconsin.

If you have any questions or comments regarding this information, please call me at (608) 235-4963.

Sincerely,

TRC

A handwritten signature in blue ink, appearing to read "Bruce Iverson".

Bruce Iverson
Project Manager

Attachments: 2021 Third Quarterly Report

cc: Evan Schreiner – Wauleco, Inc. (2 copies)
David Crass – Michael Best & Friedrich, LLP (electronic copy only)
Tom Dushek – TRC Wauleco (1 copy)
Ken Quinn – TRC (1 copy)

**Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted October 2021**

Summary of 2021 Third Quarter Activities

Groundwater Extraction and Treatment System Operation

Tables 1a, b, and c summarize the extraction and treatment system performance data for this reporting period. The results of the water discharged to the municipal sewer during the third quarter of 2021 are summarized as follows:

- Pentachlorophenol (PCP) screening (on-site gas chromatograph) results for the system effluent samples, which represent the water discharged to the municipal sanitary sewer, averaged 1.26 µg/L in July, 2.77 µg/L in August, and 1.73 µg/L in September.
- Laboratory results for the sampling event conducted this quarter are included in Tables 1a, b, and c for each month. The laboratory results for PCP in the system effluent was <3.0 µg/L on July 15, <3.0 µg/L on August 18, and <3.0 µg/L on September 16, 2021.
- Both laboratory and on-site screening results indicate that the effluent PCP concentrations were below the monthly average permit level of 150 µg/L and the daily maximum concentration of 300 µg/L.
- Total treatment system efficiency (including carbon polishing units) removed more than 99 percent of the PCP between the influent and the effluent.

On-site screening PCP influent concentrations ranged from 2,084 µg/L to 4,947 µg/L during the quarter (Tables 1a, b, and c). PCP influent and effluent concentrations in the fluidized bed reactor (FBR) are presented graphically, both as individual data points and as moving averages, on Figure 1. FBR results included the following:

- As shown on Figure 1 and in Tables 1a, b, and c, PCP concentrations in the FBR influent fluctuated during the quarter, and generally remain within normal concentrations.
- The average PCP removal efficiency for the biological portion (*i.e.*, FBR influent to the fixed film reactor [FFR] effluent) of the system during this quarter is compared to the following:

Month	Average PCP Removal (%)	Previous 12 Month Average (%)	Average 1 Year Ago (%)
July 2021	76	81	91
August 2021	63	79	89
September 2021	75	77	88

- The dissolved oxygen concentration in the influent to the FBR averaged 3.1 mg/L in July, 4.1 mg/L in August, and 3.1 mg/L in September 2021.

Laboratory results for the mercury analysis of the system effluent samples are included in Tables 1a, b, and c. The mercury concentration in the system effluent sample (discharged to the sanitary sewer) was 0.022 µg/L on July 15, 0.16 µg/L on August 18, and 0.029 µg/L on September 16, which are below the permit discharge limit of 1.6 µg/L. The mass loading for

mercury in July was calculated at 0.0000573 lb/24 hours, in August was calculated at 0.0000412 lb/24 hours, and September was calculated at 0.00000776 lb/24 hours which is below the permit discharge limit of 0.00048 lb/24 hours.

The daily groundwater flow of the effluent to the Wausau Wastewater Treatment Plant averaged 21.69 gpm for July, 21.45 gpm for August, and 22.27 gpm for September 2021 (Tables 2a, b, and c). Since June, 2012 the pumping rate has been operated at approximately 22 gpm.

Figure 2 shows the average groundwater flow extracted and the average daily flow discharged to the Wausau Wastewater Treatment Plant.

Groundwater Monitoring

A complete round of water table elevations for the month of July 2021 are summarized in Table 3. A water table map for the month of July 2021 is included as Drawing 1.

The product thickness data for July 2021 are summarized in Table 4. Measurements show minimal product present in July.

Water table elevations and product thickness data for August and September, 2021 for eleven select monitoring wells being measured in association with the City of Wausau Wastewater Treatment Plant dewatering are also summarized in Tables 3 and 4, respectively. Measurements show no product present in August and September for these wells.

Enclosures: Tables 1a, b, and c – Above Ground Treatment System Data
Tables 2a, b, and c – Treatment System Flows
Table 3 – Groundwater Elevation Data
Table 4 – Free Product Measurements
Figure 1 – FBR Influent and Effluent PCP Concentrations
Figure 2 – Average Groundwater Extraction Rates and Water Level Deviation Versus Time
Drawing 1 – Water Table Map – July 2, 2021

**TABLE 1a
JULY 2021**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	7/15/2021	7.2	3.9				<	
Chemical Oxygen Demand	mg/L	7/15/2021	39	32				20	
Chloride	mg/L	7/15/2021	240	250				250	
Dissolved Oxygen	mg/L	7/1/2021	2.8	1.2	5.4				
	mg/L	7/9/2021	3	1.2	5.6				
	mg/L	7/15/2021	3.1	1.3	5.4				
	mg/L	7/22/2021	3.3	1.4	5.3				
	mg/L	7/29/2021	3.2	1.3	4.8				
Nitrogen, Ammonia	mg/L	7/1/2021	0.5	0.6	0.4				
	mg/L	7/9/2021	0.5	0.4	0.4				
	mg/L	7/15/2021	0.4	0.3	0.3				
	mg/L	7/22/2021	0.3	0.3	0.3				
	mg/L	7/29/2021	0.4	0.3	0.3				
Nitrogen, Nitrate	mg/L	7/1/2021	<	<	<				
	mg/L	7/9/2021	<	<	<				
	mg/L	7/15/2021	<	<	<				
	mg/L	7/22/2021	<	<	<				
	mg/L	7/29/2021	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	7/15/2021	<	<				<	
Nitrogen, Total Kjeldahl	mg/L	7/15/2021	<	<				<	
Pentachlorophenol-Screen	µg/L	7/1/2021	4386	1072	1163			2	
	µg/L	7/2/2021						1	
	µg/L	7/3/2021						1	
	µg/L	7/4/2021						1	
	µg/L	7/5/2021						1	
	µg/L	7/6/2021						1	
	µg/L	7/7/2021						1	
	µg/L	7/8/2021						1	
	µg/L	7/9/2021	3566	627	746			1	
	µg/L	7/10/2021						2	
	µg/L	7/11/2021						2	
	µg/L	7/12/2021						2	
	µg/L	7/13/2021						1	
	µg/L	7/14/2021						1	
	µg/L	7/15/2021	3076	699	1140		137	2	
	µg/L	7/16/2021						2	
	µg/L	7/17/2021						1	
	µg/L	7/18/2021						1	
	µg/L	7/19/2021						1	
	µg/L	7/20/2021						1	
	µg/L	7/21/2021						1	
	µg/L	7/22/2021	2537	429	327			1	
	µg/L	7/23/2021						1	
	µg/L	7/24/2021						1	
	µg/L	7/25/2021						1	

**TABLE 1a
JULY 2021**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	7/26/2021						1	
	µg/L	7/27/2021						1	
	µg/L	7/28/2021						1	
	µg/L	7/29/2021	2673	732	591			1	
	µg/L	7/30/2021						2	
	µg/L	7/31/2021						2	
pH	S.U.	7/1/2021	6.7	6.75	6.8				
	S.U.	7/9/2021	6.9	6.9	6.9				
	S.U.	7/15/2021	6.75	6.8	6.8				
	S.U.	7/22/2021	6.85	6.9	6.9				
	S.U.	7/29/2021	6.8	6.75	6.8				
Phosphorus, Ortho	mg/L	7/15/2021	<	<				<	
Phosphorus, Phosphate	mg/L	7/1/2021	0.4	0.3	0.3				
	mg/L	7/9/2021	0.5	0.2	0.2				
	mg/L	7/15/2021	0.8	0.2	0.2				
	mg/L	7/22/2021	0.8	0.2	0.2				
	mg/L	7/29/2021	0.5	0.2	0.2				
Solids, Total Suspended	mg/L	7/15/2021	16	10				<	
Mercury	µg/L	7/15/2021	0.15					0.022	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	7/15/2021	200	68	62		28	<	<
2,4,5-Trichlorophenol	µg/L	7/15/2021	<	<	<		<	<	<
2,4,6-Trichlorophenol	µg/L	7/15/2021	<	<	<		<	<	<
2,4-Dichlorophenol	µg/L	7/15/2021	<	<	<		<	<	<
2,4-Dimethylphenol	µg/L	7/15/2021	<	<	<		<	<	<
2,4-Dinitrophenol	µg/L	7/15/2021	<	<	<		<	<	<
2,6-Dichlorophenol	µg/L	7/15/2021	<	<	<		<	<	<
2-Chlorophenol	µg/L	7/15/2021	<	<	<		<	<	<
2-Methylphenol	µg/L	7/15/2021	<	<	<		<	<	<
2-Nitrophenol	µg/L	7/15/2021	<	<	<		<	<	<
3&4-Methylphenol	µg/L	7/15/2021	<	<	<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	7/15/2021	<	<	<		<	<	<
4-Chloro-3-Methylphenol	µg/L	7/15/2021	<	<	<		<	<	<
4-Nitrophenol	µg/L	7/15/2021	<	<	<		<	<	<
Pentachlorophenol	µg/L	7/15/2021	2200	610	540		220	<	<
Phenol	µg/L	7/15/2021	<	<	<		<	<	<

**TABLE 1b
AUGUST 2021**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	8/18/2021	6.7	3.0				<	
Chemical Oxygen Demand	mg/L	8/18/2021	20	<				<	
Chloride	mg/L	8/18/2021	150	150				160	
Dissolved Oxygen	mg/L	8/5/2021	3.8	1.6	5.4				
	mg/L	8/12/2021	3.8	1.3	5.4				
	mg/L	8/18/2021	4.2	1.4	5.8				
	mg/L	8/26/2021	4.4	1.5	6				
Nitrogen, Ammonia	mg/L	8/5/2021	0.3	0.3	0.3				
	mg/L	8/12/2021	0.3	0.3	0.3				
	mg/L	8/18/2021	0.2	0.2	0.2				
	mg/L	8/26/2021	0.4	0.4	0.3				
Nitrogen, Nitrate	mg/L	8/5/2021	<	<	<				
	mg/L	8/12/2021	<	<	<				
	mg/L	8/18/2021	<	<	<				
	mg/L	8/26/2021	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	8/18/2021	<	<				<	
Pentachlorophenol-Screen	µg/L	8/1/2021						2	
	µg/L	8/2/2021						2	
	µg/L	8/3/2021						3	
	µg/L	8/4/2021						3	
	µg/L	8/5/2021	3169	635	885			2	
	µg/L	8/6/2021						4	
	µg/L	8/7/2021						7	
	µg/L	8/8/2021						7	
	µg/L	8/9/2021						7	
	µg/L	8/10/2021						4	
	µg/L	8/11/2021						5	
	µg/L	8/12/2021	3784	1263	1504			4	
	µg/L	8/13/2021						2	
	µg/L	8/14/2021						3	
	µg/L	8/15/2021						3	
	µg/L	8/16/2021						3	
	µg/L	8/17/2021						1	
	µg/L	8/18/2021	2084	372	479		105	4	
	µg/L	8/19/2021						2	
	µg/L	8/20/2021						1	
µg/L	8/21/2021						1		
µg/L	8/22/2021						1		
µg/L	8/23/2021						1		
µg/L	8/24/2021						1		
µg/L	8/25/2021						2		
µg/L	8/26/2021	2191	1213	1229			2		
µg/L	8/27/2021						1		

TABLE 1b
AUGUST 2021

Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	8/28/2021						2	
	µg/L	8/29/2021						2	
	µg/L	8/30/2021						2	
	µg/L	8/31/2021						2	
pH	S.U.	8/5/2021	6.6	6.55	6.6				
	S.U.	8/12/2021	6.6	6.6	6.65				
	S.U.	8/18/2021	6.65	6.55	6.7				
	S.U.	8/26/2021	6.55	6.65	6.7				
Phosphorus, Ortho	mg/L	8/18/2021	<	<				<	
Phosphorus, Phosphate	mg/L	8/5/2021	0.4	0.3	0.3				
	mg/L	8/12/2021	0.6	0.3	0.3				
	mg/L	8/18/2021	0.6	0.3	0.3				
	mg/L	8/26/2021	0.7	0.3	0.3				
Solids, Total Suspended	mg/L	8/18/2021	13	9.0				4.2	
Mercury	µg/L	8/18/2021						0.16	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	8/18/2021	190		66			<	<
2,4,5-Trichlorophenol	µg/L	8/18/2021	<		<			<	<
2,4,6-Trichlorophenol	µg/L	8/18/2021	<		<			<	<
2,4-Dichlorophenol	µg/L	8/18/2021	<		<			<	<
2,4-Dimethylphenol	µg/L	8/18/2021	<		<			<	<
2,4-Dinitrophenol	µg/L	8/18/2021	<		<			<	<
2,6-Dichlorophenol	µg/L	8/18/2021	<		<			<	<
2-Chlorophenol	µg/L	8/18/2021	<		<			<	<
2-Methylphenol	µg/L	8/18/2021	<		<			<	<
2-Nitrophenol	µg/L	8/18/2021	<		<			<	<
3&4-Methylphenol	µg/L	8/18/2021	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	8/18/2021	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	8/18/2021	<		<			<	<
4-Nitrophenol	µg/L	8/18/2021	<		<			<	<
Pentachlorophenol	µg/L	8/18/2021	2300		660			<	<
Phenol	µg/L	8/18/2021	<		<			<	<

**TABLE 1c
SEPTEMBER 2021**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	9/16/2021	6.9	4.6				<	
Chemical Oxygen Demand	mg/L	9/16/2021	39	29				60	
Chloride	mg/L	9/16/2021	140	150				150	
Dissolved Oxygen	mg/L	9/2/2021	3.2	1.4	6				
	mg/L	9/9/2021	3.4	1.4	6.3				
	mg/L	9/16/2021	3.4	1.6	6				
	mg/L	9/22/2021	2.4	0.8	5				
	mg/L	9/29/2021	2.9	1.1	4.9				
Nitrogen, Ammonia	mg/L	9/2/2021	0.3	0.3	0.3				
	mg/L	9/9/2021	0.5	0.3	0.3				
	mg/L	9/16/2021	0.5	0.4	0.4				
	mg/L	9/22/2021	0.6	0.5	0.5				
	mg/L	9/29/2021	0.3	0.3	0.2				
Nitrogen, Nitrate	mg/L	9/2/2021	<	<	<				
	mg/L	9/9/2021	<	<	<				
	mg/L	9/16/2021	<	<	<				
	mg/L	9/22/2021	<	<	<				
	mg/L	9/29/2021	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	9/16/2021	0.45	0.40				1.1	
Pentachlorophenol-Screen	µg/L	9/1/2021						1	
	µg/L	9/2/2021	4381	1046	793			1	
	µg/L	9/3/2021						2	
	µg/L	9/4/2021						2	
	µg/L	9/5/2021						2	
	µg/L	9/6/2021						2	
	µg/L	9/7/2021						2	
	µg/L	9/8/2021						2	
	µg/L	9/9/2021	3402	1203	988			2	
	µg/L	9/10/2021						3	
	µg/L	9/11/2021						2	
	µg/L	9/12/2021						2	
	µg/L	9/13/2021						2	
	µg/L	9/14/2021						2	
	µg/L	9/15/2021						1	
	µg/L	9/16/2021	4947	1403	1260		107	1	
	µg/L	9/17/2021						1	
	µg/L	9/18/2021						1	
	µg/L	9/19/2021						1	
	µg/L	9/20/2021						1	
	µg/L	9/21/2021						1	
	µg/L	9/22/2021	3302	1075	958			1	
	µg/L	9/23/2021						3	
	µg/L	9/24/2021						1	
	µg/L	9/25/2021						2	

**TABLE 1c
SEPTEMBER 2021**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	9/26/2021						2	
	µg/L	9/27/2021						2	
	µg/L	9/28/2021						2	
	µg/L	9/29/2021	4073	815	890			2	
	µg/L	9/30/2021						3	
pH	S.U.	9/2/2021	6.7	6.8	6.6				
	S.U.	9/9/2021	6.55	6.55	6.6				
	S.U.	9/16/2021	6.6	6.6	6.55				
	S.U.	9/22/2021	6.6	6.6	6.65				
	S.U.	9/29/2021	6.6	6.55	6.6				
Phosphorus, Ortho	mg/L	9/16/2021	<	<				<	
Phosphorus, Phosphate	mg/L	9/2/2021	0.4	0.3	0.3				
	mg/L	9/9/2021	0.6	0.3	0.3				
	mg/L	9/16/2021	0.4	0.3	0.3				
	mg/L	9/22/2021	0.4	0.3	0.3				
	mg/L	9/29/2021	0.4	0.3	0.3				
Solids, Total Suspended	mg/L	9/16/2021	17	19				9.6	
Mercury	µg/L	9/16/2021						0.029	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	9/16/2021	<	57	60			<	<
2,4,5-Trichlorophenol	µg/L	9/16/2021	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	9/16/2021	<	<	<			<	<
2,4-Dichlorophenol	µg/L	9/16/2021	<	<	<			<	<
2,4-Dimethylphenol	µg/L	9/16/2021	<	<	<			<	<
2,4-Dinitrophenol	µg/L	9/16/2021	<	<	<			<	<
2,6-Dichlorophenol	µg/L	9/16/2021	<	<	<			<	<
2-Chlorophenol	µg/L	9/16/2021	<	<	<			<	<
2-Methylphenol	µg/L	9/16/2021	<	<	<			<	<
2-Nitrophenol	µg/L	9/16/2021	<	<	<			<	<
3&4-Methylphenol	µg/L	9/16/2021	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	9/16/2021	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	9/16/2021	<	<	<			<	<
4-Nitrophenol	µg/L	9/16/2021	<	<	<			<	<
Pentachlorophenol	µg/L	9/16/2021	2500	630	620			<	<
Phenol	µg/L	9/16/2021	<	<	<			<	<

TABLE 2a
JULY 2021

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

<u>Date</u>	<u>Influent Groundwater Flow Rate ⁽¹⁾⁽³⁾ (gpm)</u>	<u>POTW Discharge Flow Rate ⁽¹⁾⁽⁴⁾ (gpm)</u>	<u>POTW Totalized Discharge ⁽³⁾ (gal)</u>
7/1/2021	20.89	22.66	100998472
7/2/2021	20.84	22.55	101030943
7/3/2021	20.71	22.62	101063521
7/4/2021	20.57	22.61	101065037 ⁽⁵⁾
7/5/2021	20.31	22.62	101065037 ⁽⁵⁾
7/6/2021	20.04	22.59	101065037 ⁽⁵⁾
7/7/2021	20.02	21.18	101095539
7/8/2021	20.11	21.20	101126064
7/9/2021	20.01	20.92	101156184
7/10/2021	19.89	20.90	101186279
7/11/2021	19.76	20.49	101215789
7/12/2021	19.78	20.08	101244704
7/13/2021	19.75	22.35	101276887
7/14/2021	19.76	22.34	101309060
7/15/2021	19.52	21.47	101339979
7/16/2021	18.97	20.86	101370016
7/17/2021	18.77	20.26	101399184
7/18/2021	18.66	19.92	101427862
7/19/2021	18.61	19.69	101456211
7/20/2021	21.44	22.20	101488175
7/21/2021	21.39	22.22	101520167
7/22/2021	21.62	22.13	101552036
7/23/2021	21.75	22.03	101583753
7/24/2021	21.87	22.01	101612576
7/25/2021	21.95	22.00	101612576 ⁽⁵⁾
7/26/2021	21.91	21.98	101612576 ⁽⁵⁾
7/27/2021	21.93	21.64	101643737
7/28/2021	19.56	20.35	101673043
7/29/2021	22.53	22.96	101706108
7/30/2021	22.24	22.90	101739090
7/31/2021	22.44	22.67	101771732
Average For The Month	20.57	21.69	
Total ⁽²⁾⁽⁵⁾ :			968,243

Footnotes:

- ⁽¹⁾ Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- ⁽²⁾ Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- ⁽³⁾ Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- ⁽⁴⁾ A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.
- ⁽⁵⁾ The effluent meter reed switch malfunctioned on July 4-6 and 25-26, and the total flow was calculated using the daily flow rates from each meter. The additional flow was added to the monthly total.

TABLE 2b
AUGUST 2021

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ^{(1) (4)} (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
8/1/2021	22.35	22.56	101804225
8/2/2021	22.67	22.28	101836302
8/3/2021	22.66	21.86	101867781
8/4/2021	22.43	21.45	101898663
8/5/2021	22.31	20.93	101928795
8/6/2021	21.73	21.83	101960223
8/7/2021	21.77	21.85	101991684
8/8/2021	21.73	21.78	102023040
8/9/2021	21.66	21.72	102054321
8/10/2021	21.53	21.76	102085654
8/11/2021	21.26	21.61	102116767
8/12/2021	21.94	21.33	102147484
8/13/2021	21.40	21.13	102172162 ⁽⁵⁾
8/14/2021	21.03	20.82	102173727 ⁽⁵⁾
8/15/2021	21.07	20.82	102173727 ⁽⁵⁾
8/16/2021	21.15	20.45	102173727
8/17/2021	21.73	20.19	102201603
8/18/2021	21.84	19.43	102229582
8/19/2021	22.03	19.45	102257584
8/20/2021	22.23	19.81	102286115
8/21/2021	22.14	22.44	102318425
8/22/2021	22.63	22.86	102351342
8/23/2021	22.89	22.86	102384259
8/24/2021	22.93	22.70	102416941
8/25/2021	22.78	22.25	102448974
8/26/2021	22.78	22.09	102480789
8/27/2021	23.01	21.82	102512209
8/28/2021	22.96	21.60	102543310
8/29/2021	23.09	21.28	102573956
8/30/2021	23.12	21.23	102604533
8/31/2021	23.35	20.93	102634668
Average For The Month	22.20	21.45	
Total ⁽²⁾⁽⁵⁾ :			957,743

Footnotes:

- (1) Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- (2) Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- (3) Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- (4) A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.
- (5) The effluent meter reed switch malfunctioned on August 13-15, and the total flow was calculated using the daily flow rates from each meter. The additional flow was added to the monthly total.

TABLE 2c
SEPTEMBER 2021

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

<u>Date</u>	<u>Influent Groundwater Flow Rate ^{(1) (3)} (gpm)</u>	<u>POTW Discharge Flow Rate ^{(1) (4)} (gpm)</u>	<u>POTW Totalized Discharge ⁽³⁾ (gal)</u>
9/1/2021	23.02	20.98	102664882
9/2/2021	22.82	21.23	102695447
9/3/2021	22.23	20.63	102725148
9/4/2021	22.98	21.38	102755939
9/5/2021	22.93	21.34	102786669
9/6/2021	22.68	21.10	102817058
9/7/2021	22.72	21.09	102847423
9/8/2021	22.92	21.23	102877993
9/9/2021	24.09	21.88	102909495
9/10/2021	24.04	21.79	102940874
9/11/2021	23.96	22.14	102972760
9/12/2021	23.95	21.85	103004231
9/13/2021	23.51	21.83	103035667
9/14/2021	23.35	22.00	103067353
9/15/2021	22.97	21.38	103098143
9/16/2021	22.61	21.48	103129075
9/17/2021	22.62	21.67	103160278
9/18/2021	23.06	21.69	103191516
9/19/2021	23.19	21.66	103222712
9/20/2021	23.22	21.61	103253833
9/21/2021	23.18	21.60	103284933
9/22/2021	19.87	19.05	103312370
9/23/2021	28.54	26.74	103350871
9/24/2021	28.07	25.46	103387537
9/25/2021	28.05	25.20	103423830
9/26/2021	27.98	25.08	103459940
9/27/2021	27.72	24.75	103495574
9/28/2021	26.29	23.83	103529889
9/29/2021	25.67	23.32	103563464
9/30/2021	25.27	23.09	103596712
Average For The Month	24.12	22.27	
Total ⁽²⁾ :			962,044

Footnotes:

- (1) Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- (2) Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- (3) Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- (4) A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

TABLE 3

**Groundwater Elevation Data
Wauleco, Inc.
Wausau, Wisconsin**

Well	July 02, 2021 (ft msl)	August 02, 2021 (ft msl)	September 01, 2021 (ft msl)
PW01	1163.2	----	----
PW02	Abandoned	Abandoned	Abandoned
PW03	1163.46	----	----
PW3S	1162.92	----	----
PW04	1162.81	----	----
PW05	1162.66	----	----
PW06	1162.75	----	----
PW07	1162.7	----	----
PW08	1163.56	----	----
PW09I	----	----	----
PW09O	1163.13	----	----
PW10	1162.82	----	----
PW11	1161.88	----	----
PW12	1163.27	----	----
PW13	1162.78	----	----
PW14	1164.31	----	----
PW15	1164.23	----	----
PW16	1161.21	----	----
PW17	1160.16	----	----
PW18	1163.01	----	----
PW19	1161.61	----	----
PW20	1161.126	----	----
PW21	1162.14	----	----
PW22	1162.65	----	----
PW23	1162.66	----	----
PW24	1161.1	----	----
PW25	1160.78	----	----
PW26	1161.28	----	----
PW27	1161.77	----	----
PW28	1163.26	----	----
PW29	1163.28	----	----
P01	1162.86	----	----
OW01	1164.37	----	----
W01A	Abandoned	Abandoned	Abandoned
W01B	Abandoned	Abandoned	Abandoned
W02	1162.92	----	----
W03A	1163.25	----	----
W03B	1162.31	----	----
W04A	1162.82	----	----
W04B	1162.75	----	----
W05	1162.75	----	----
W06R	1163.39	----	----
W07	1163.23	----	----
W08	1171.9	----	----
W09	1162.31	----	----
W10A	1161.41	1161.44	1161.18
W10B	1161.34	----	----
W11	1160.98	1160.87	1160.80
W12	1160.52	1160.29	1160.38
W13	1163.04	----	----
W14	1160.84	1160.56	1160.64
W16	1162.12	1162.57	1161.79
W17	1164.02	----	----
W18	1161.4	----	----

TABLE 3 (continued)

**Groundwater Elevation Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	<u>July 02, 2021 (ft msl)</u>	<u>August 02, 2021 (ft msl)</u>	<u>September 01, 2021 (ft msl)</u>
W19	Abandoned	Abandoned	Abandoned
W21	1160.59	1160.22	1160.62
W22	1162.35	1163.04	1161.36
W23	1160.89	-----	-----
W24A	1160.86	-----	-----
W25	1163.51	-----	-----
W26/W26R	1161.38	1161.30	1161.09
W27	1161.8	1162.18	1161.47
W28	1161.32	-----	-----
W29/W29R	1160.99	1160.76	1160.89
W30	1162.82	-----	-----
W31	1160.87	-----	-----
W32	1160.89	1160.68	1160.97
W33	1162.61	-----	-----
W34	1162.62	-----	-----
W35	1162.79	-----	-----
W36	1163.07	-----	-----
W39	Abandoned	Abandoned	Abandoned
W40/W40R	1162.09	-----	-----
W41	1162.44	-----	-----
W42	1162.98	-----	-----
W44	1162.72	-----	-----
W45	1163.85	-----	-----
W46	1162.65	-----	-----
W47	1161.94	-----	-----
W48	1163.21	-----	-----
W49	1164.5	-----	-----
W66	1163.3	-----	-----
W67	1163.27	-----	-----
W68A	1163.36	-----	-----
W68B	1163.22	-----	-----
W69	1162.73	-----	-----
W70B	Abandoned	Abandoned	Abandoned
River	-----	-----	-----
IW01	1162.77	-----	-----
IW01A	1162.77	-----	-----
FP01	1161.51	-----	-----
FP02	1161.58	-----	-----
FP03	1160.94	-----	-----
FP04	1161.86	-----	-----
3M Basin	Water in both Basins	----	-----
DFOWM 5	1162.92	-----	-----
DFOWM 9	Abandoned	Abandoned	Abandoned
DFOWM 10A	Abandoned	Abandoned	Abandoned
DFOWM 11	1162.12	-----	-----
DFOWM 12	1163.14	-----	-----
W71	1164.86	-----	-----
W72	1163.65	-----	-----
W73	1162.92	-----	-----
W74	1162.58	-----	-----

Notes:

1. ft msl = feet mean sea level
2. PW09O denotes the outer well and PW09I denotes the inner well
3. ----- = Well not measured
4. Groundwater elevations have been adjusted for product thickness.
5. Top of casing elevations were resurveyed for the on-site wells on December 4, 2009 . Use of the new data began in January 2010.

Table 4

Free Product Measurements
 Wauleco, Inc.
 Wausau, Wisconsin

Well	July 02, 2021 (ft)	August 02, 2021 (ft msl)	September 01, 2021 (ft msl)
PW01	0.00	----	----
PW02	Abandoned	Abandoned	Abandoned
PW03	0.00	----	----
PW3S	0.00	----	----
PW04	0.00	----	----
PW05	0.00	----	----
PW06	0.00	----	----
PW07	0.00	----	----
PW08	0.00	----	----
PW09I	----	----	----
PW09O	0.00	----	----
PW10	0.00	----	----
PW11	0.00	----	----
PW12	0.00	----	----
PW13	0.00	----	----
PW14	0.00	----	----
PW15	0.00	----	----
PW16	0.00	----	----
PW17	0.00	----	----
PW18	0.00	----	----
PW19	0.00	----	----
PW20	0.02	----	----
PW21	0.00	----	----
PW22	0.00	----	----
PW23	0.00	----	----
PW24	0.00	----	----
PW25	0.00	----	----
PW26	0.00	----	----
PW27	0.00	----	----
PW28	0.00	----	----
PW29	0.00	----	----
P01	0.00	----	----
OW01	0.00	----	----
W01A	Abandoned	Abandoned	Abandoned
W01B	Abandoned	Abandoned	Abandoned
W02	0.00	----	----
W03A	0.00	----	----
W03B	0.00	----	----
W04A	0.00	----	----
W04B	0.00	----	----
W05	0.00	----	----
W06R	0.00	----	----
W07	0.35	----	----
W08	0.00	----	----
W09	0.00	----	----
W10A	0.00	0.00	0.00
W10B	0.00	----	----
W11	0.00	0.00	0.00
W12	0.00	0.00	0.00
W13	0.00	----	----
W14	0.00	0.00	0.00
W16	0.00	0.00	0.00
W17	0.00	----	----

Free Product Measurements
Wauleco, Inc.
Wausau, Wisconsin

<u>Well</u>	July 02, 2021 (ft)	August 02, 2021 (ft msl)	September 01, 2021 (ft msl)
W18	0.00	----	----
W19	Abandoned	Abandoned	Abandoned
W21	0.00	0.00	0.00
W22	0.00	0.00	0.00
W23	0.00	----	----
W24A	0.00	----	----
W25	0.00	----	----
W26/W26R	0.00	0.00	0.00
W27	0.00	0.00	0.00
W28	0.00	----	----
W29/W29R	0.00	0.00	0.00
W30	0.00	----	----
W31	0.00	----	----
W32	0.00	0.00	0.00
W33	0.00	----	----
W34	0.00	----	----
W35	0.00	----	----
W36	0.00	----	----
W39	Abandoned	Abandoned	Abandoned
W40/W40R	0.00	----	----
W41	0.00	----	----
W42	0.00	----	----
W44	0.00	----	----
W45	0.00	----	----
W46	0.00	----	----
W47	0.00	----	----
W48	0.00	----	----
W49	0.00	----	----
W66	0.00	----	----
W67	0.00	----	----
W68A	0.00	----	----
W68B	0.00	----	----
W69	0.00	----	----
W70B	Abandoned	Abandoned	Abandoned
River	----	----	----
IW01	0.00	----	----
IW01A	0.00	----	----
FP01	0.00	----	----
FP02	0.00	----	----
FP03	0.00	----	----
FP04	0.00	----	----
3M Basin	----	----	----
DFOWM 5	----	----	----
DFOWM 9	Abandoned	Abandoned	Abandoned
DFOWM 10A	Abandoned	Abandoned	Abandoned
DFOWM 11	0.00	----	----
DFOWM 12	0.00	----	----
W71	0.00	----	----
W72	0.00	----	----
W73	0.00	----	----
W74	0.00	----	----

Notes:

1. PW09O denotes the outer well and PW09I denotes the inner well
2. ---- = Well not measured

FIGURE 1
FBR Influent and Effluent PCP Concentrations
Wauleco, Inc.
Wausau, WI

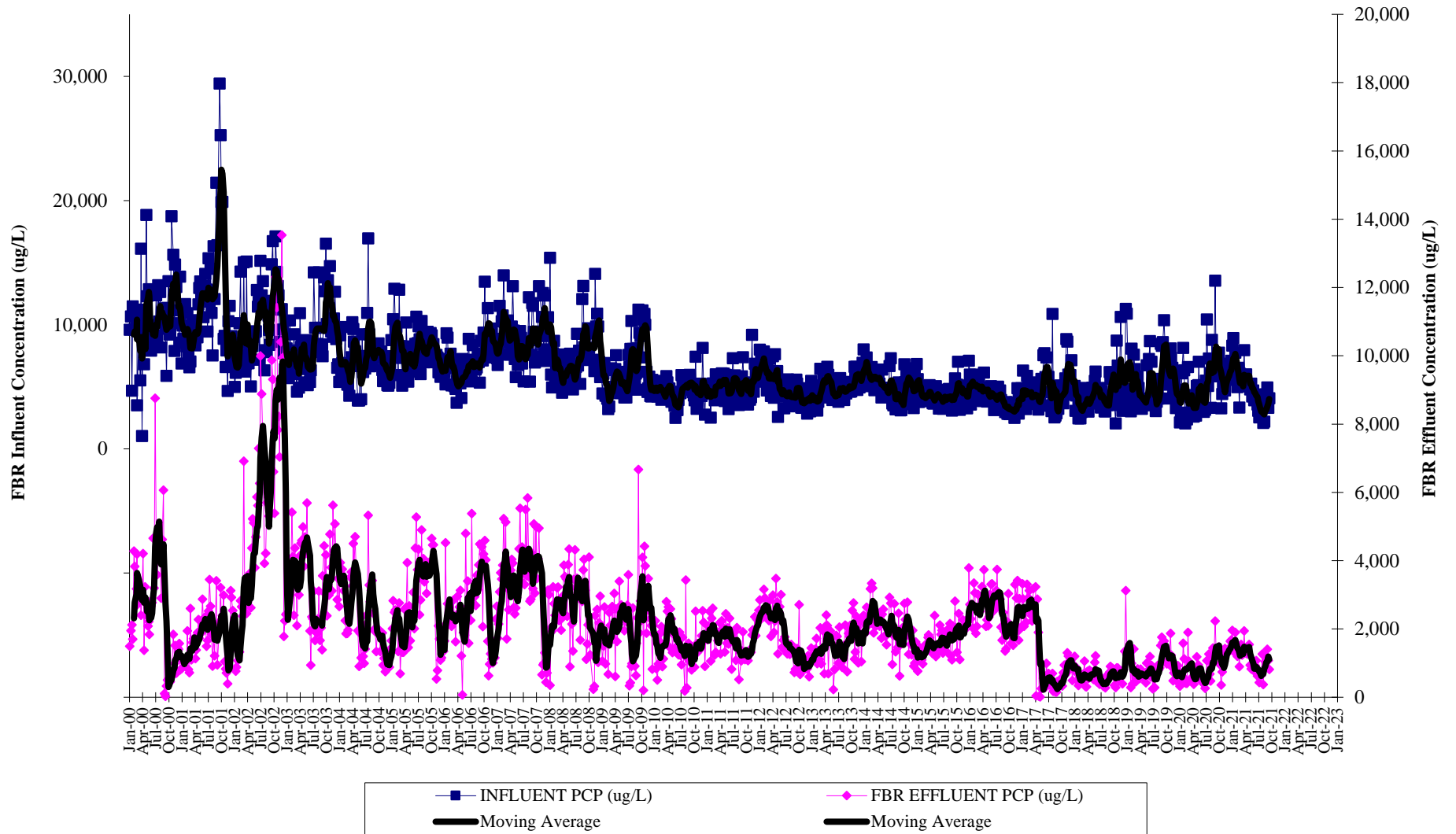
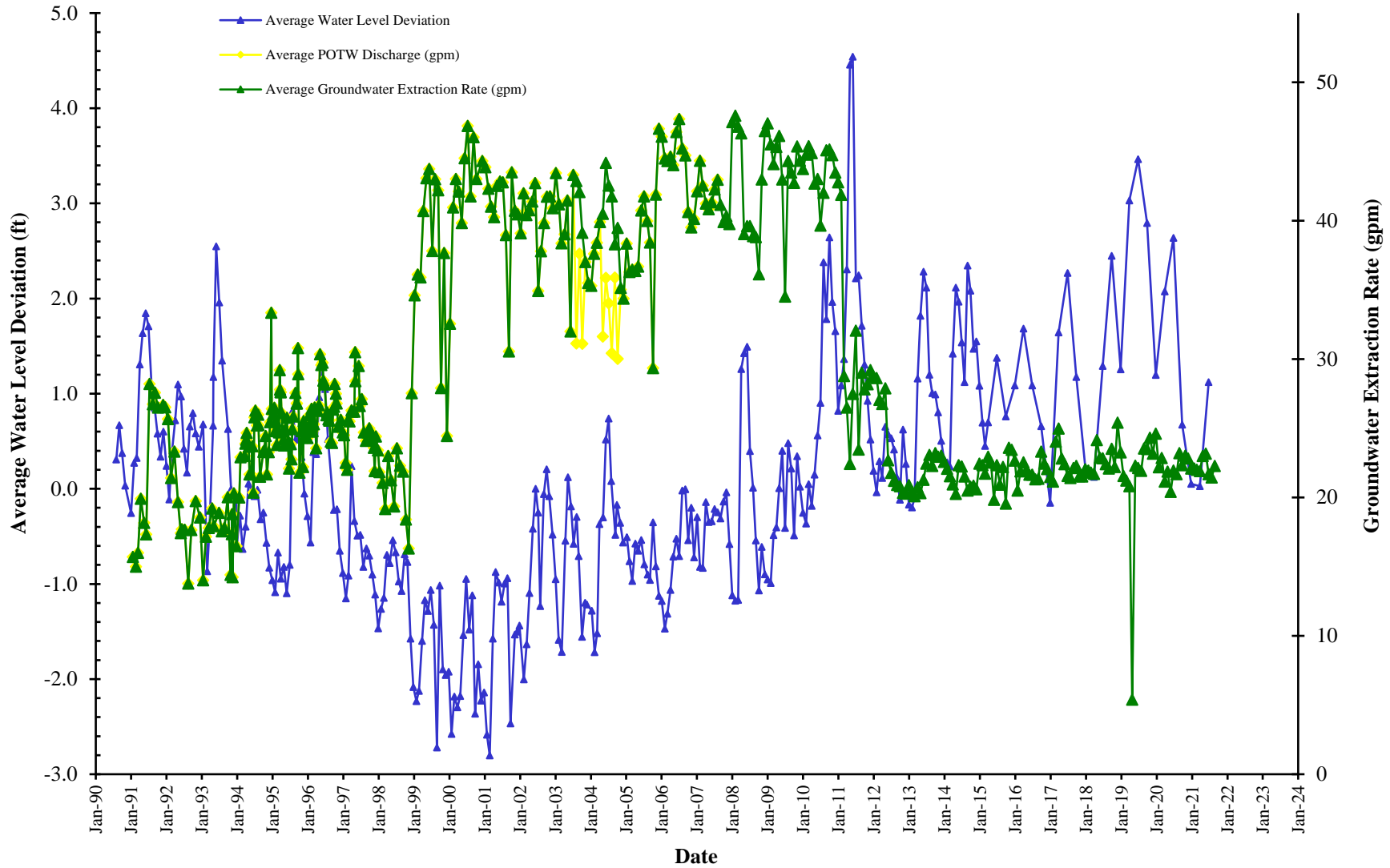


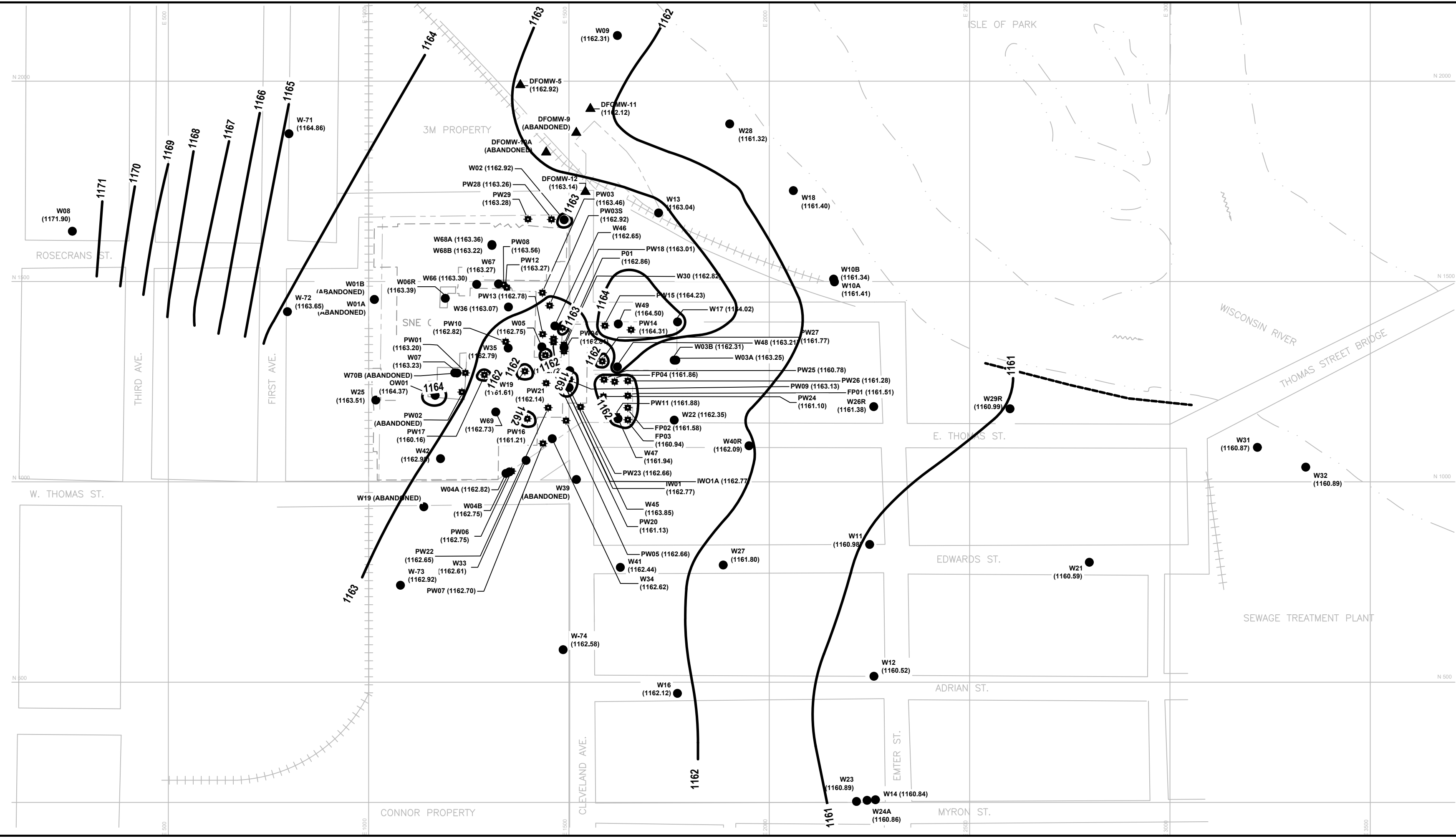
FIGURE 2

Average Groundwater Extraction Rates and Water Level Deviation Versus Time
Wauleco, Inc.
Wausau, WI



Note: The Average Groundwater Extraction Rate is a monthly average of the flow into the treatment system. The monthly average POTW discharge is less than the total extraction rate during the PPT pilot test due to the injection of treated water into IW01.

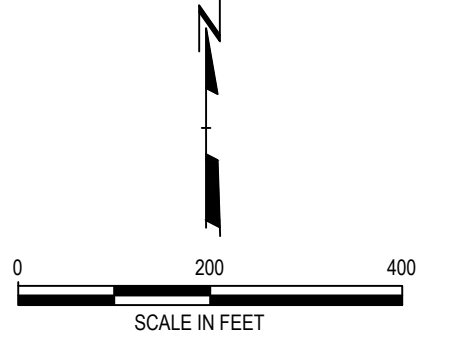
1164 - USER: T:\Users\jwheeler\OneDrive - Wausau\Documents\189597\010121.WT July 21.dwg -- PLOT DATE: August 10, 2021 - 6:27AM -- LAYOUT: WATER TABLE MAP (JULY 2021)
 1164 - USER: T:\Users\jwheeler\OneDrive - Wausau\Documents\189597\010121.WT July 21.dwg -- PLOT DATE: August 10, 2021 - 6:27AM -- LAYOUT: WATER TABLE MAP (JULY 2021)
 DRAWING NAME: J:\Wausau\189597 - Annual 2021\010121.WT July 21.dwg -- PLOT DATE: August 10, 2021 - 6:27AM -- LAYOUT: WATER TABLE MAP (JULY 2021)
 Version: 2017-10-21



LEGEND

- W17 ● (1164.02) MONITORING WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
- PW12 ■ (1163.27) EXTRACTION WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
- APPROXIMATE PROPERTY LINE
- - - FORMER BUILDING OUTLINE
- APPROXIMATE LOCATION OF SHEET PILE WALL
- 1161— WATER TABLE ELEVATION CONTOUR
- DFOMW-5 ▲ 3M GROUNDWATER MONITORING WELL

- NOTES**
1. BASE MAP DEVELOPED FROM DRAWING A107250-1 OF THE SEPTEMBER 1992 SEMI-ANNUAL GROUNDWATER MONITORING REPORT BY KEYSTONE ENVIRONMENTAL, MWH DRAWING 2082658.302160101-B1, AND 3M WELLS LOCATION BASED ON 3M MAPS.
 2. WATER ELEVATIONS OBTAINED BY TRC ON JULY 2, 2021. ON THIS DATE, THE PUMPING RATE OF THE GROUNDWATER EXTRACTION SYSTEM WAS APPROXIMATELY 22.5 GPM.
 3. WAULECO WELLS W702 AND W70B WERE ABANDONED ON 7/21/16 DURING SOIL MOUND REMOVAL ACTIVITIES BY TRC. 3M WELLS DFOMW9 AND DFOMW10A WERE ABANDONED BY 3M IN THE SUMMER OF 2015.
 4. WAULECO WELLS W19 AND W39 WERE ABANDONED ON 3/28/19 PRIOR TO THOMAS STREET RECONSTRUCTION. WELLS W26, W29, AND W40 WERE ALSO ABANDONED ON 3/28/19, WITH REPLACEMENT WELLS W26R, W29R, AND W40R INSTALLED ON 6/24/19.
 5. THE CITY OF WAUSAU INSTALLED A STEEL SHEET PILING WALL IN 2020 TO REPLACE A ROCK WALL ON THE WISCONSIN RIVER BANK LOCATED WEST OF THE THOMAS STREET BRIDGE.
 6. WAULECO WELLS W1A AND W1B WERE ABANDONED ON 6/29/21 FOR PROPERTY TRANSFER TO 3M.



PROJECT:		WAULECO, INC. QUARTERLY REPORT WAUSAU, WISCONSIN	
TITLE:		WATER TABLE MAP (JULY 2021)	
DRAWN BY:	G. ASHWORTH	PROJ NO.:	189597.0010
CHECKED BY:	T. DUSHEK	DRAWING 1	
APPROVED BY:	K. QUINN		
DATE:	AUGUST 2021		

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FILE NO.: 189597.0010.12.WT July 21.dwg